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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.         | CONFIRMATION NO. |
|--|-------------|----------------------|-----------------------------|------------------|
| 10/721,895   | 11/26/2003  | Alfred Niederberger  | 8932-803-999                | 6293             |
| 51832  | 7590        | 09/24/2007           |                             |                  |
| JONES DAY<br>222 EAST 41ST STREET<br>NEW YORK, NY 10017-6702 |             |                      | EXAMINER<br>ARAJ, MICHAEL J |                  |
|  |             |                      | ART UNIT                    | PAPER NUMBER     |
|  |             |                      | 3733                        |                  |
|  |             |                      | MAIL DATE                   | DELIVERY MODE    |
|  |             |                      | 09/24/2007                  | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                               |                                     |  |
|------------------------------|-------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/721,895 | Applicant(s)<br>NIEDERBERGER ET AL. |  |
|                              | Examiner<br>Michael J. Araj   | Art Unit<br>3733                    |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-42, 44-47 and 51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-39 and 44-46 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-21, 24, 40-42, 47 and 51 is/are rejected.
- 7) ☐ Claim(s) 22 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/24/07</u>   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6, 7, 9-21, 24, 40-42, 47 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wack et al. (U.S. Publication No. 2002/0156474) in view of Kondo (U.S. Patent No. 3,779,240).

Wack et al. disclose a bone plate (14) comprising an elongated shaft portion having a first width, a head portion connected to the shaft portion having a greater width along a common longitudinal axis, at least one partially threaded screw hole (22) located in the head and shaft portion where in at least one of said screw holes are configured to engage a head of a bone screw to form an angularly stable connection with the bone screw. The first and second screw holes include at least a partial peripheral groove (354) for engaging a head of a bone screw that is substantially wedged shaped. Wack et al. also disclose a third width that widens exponentially, the shaft portion being curved in the form of an elliptical arc along the longitudinal axis, and the shaft portion lying in a first plane that is substantially parallel to the head portion lying in a second plane (see Figure 11). At least one portion of the bone plate has a curvature that runs transversely to the longitudinal axis, where the curvature substantially runs over the entire length of the bone plate. The head portion is

connected to the shaft portion at a transition portion where one first pair of the first holes is located farther from the transition portion than the second pair of the first holes, and where at least one of the second holes defines a central axis that is substantially perpendicular to the longitudinal axis. Also disclosed are the plurality of second screw holes are symmetrically arranged about the common longitudinal axis and the plurality of first screw holes are asymmetrically arranged about the common longitudinal axis. (See Fig. 8) Wack et al. disclose the claimed invention except for the elongated perimeter of at least one screw hole being formed by first and second overlapping shapes of different size and the range of the thread pitch, plate thickness, elliptical arc with a major and minor axis, curvature of radius, acute angles and obtuse angles.

Kondo discloses an elongated perimeter of at least one screw hole formed by a first and second overlapping shape of different size so that when the screw is tightened the hole causes progression of the plate along its axis to encourage and retain the fracture surfaces in firm abutment (Col 2, Paragraph 1). It would have been obvious to one skilled in the art at the time the invention was made to have constructed the device of Wack et al. with an elongated perimeter being made of two different sized holes in view of Kondo., in order to have a firmer support for the fractured bone. With respect to the ranges, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the bone plate of Wack et al. having the ranges as set forth in the disclosed claim, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wack et al. (U.S. Publication No. 2002/0156474) in view of Kondo (U.S. Patent No. 3,779,240) further in view of Schafer et al. (U.S. Patent No. 6,572,622).

The combination of Wack et al. and Kondo disclose the claimed invention, as applied to claim 1, except for the plate having screw holes that are double threaded. Schafer et al. teaches a serrated or threaded edge (32) on two portions of the aperture (the flat flank (34) and the steep flank (36)) producing a double threaded screw hole. It would have been obvious to one skilled in the art at the time the invention was made to construct the plate of Weaver et al. with a double threaded screw hole in view of Schafer et al., for facilitating screwing in the bone screw and prevent automatic unscrewing (Col. 3, lines 6-11).

### ***Response to Arguments***

Upon further consideration it was determined that previously submitted claim 8 was not allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim, therefore claim 1 as it stands is not in condition for allowance.

### ***Allowable Subject Matter***

Claims 22 and 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 25-39 and 44-46 are allowed.

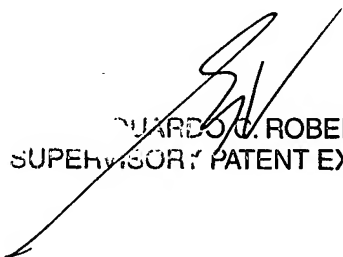
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Araj whose telephone number is 571-272-5963. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
MJA

  
EDUARDO C. ROBERT  
SUPERVISORY PATENT EXAMINER